

= 4/15  
F  
9-17-01  
NO

BRUCE D SUNSTEIN  
LEE CARL BROMBERG  
ROBERT L KANN  
TIMOTHY M MURPHY  
KERRY L TIMBERS  
JOEL R. LEEMAN  
ROBERT M ASHER  
THOMAS C CAREY  
EDWARD J DAILEY  
ERIK PAUL BELT  
JULIA HUSTON  
STEVEN G SAUNDERS  
SAMUEL J PETUCHOWSKI, PH.D

JUDITH R S. STERN  
LISA M. FLEMING  
HARRIET M. STRIMPEL, D. PHIL.  
SONIA K. GUTERMAN, PH.D

SENIOR SCIENTIST\*  
WAYNE G. HASER  
\*NON-LAWYER

## BROMBERG & SUNSTEIN LLP

ATTORNEYS AT LAW  
125 SUMMER STREET  
BOSTON, MA 02110-1618  
(617) 443-9292  
FACSIMILE: (617) 443-0004  
WWW.BHOMSUN.COM

THEODORE E MACVEAGH  
ANNE MARIE LONGOBUCCO  
LINCOLN S JALELIAN  
CHRISTOPHER K. BARRY-SMITH  
KAREN A BUCHANAN  
JOHN F WARD  
LISA M TITTEMORE  
JOHN J STICKEVERS  
JILL E DIAZ  
AHAVIAH D GLASER  
HERBERT A NEWBORN  
JEFFREY T KLAYMAN  
NICOLE ZAWARSKI  
JAY SANDVOS  
ALTON HORNSBY III†  
JEAN M TIBBETTS  
JENNIFER M REYNOLDS  
ELIZABETH P MORANO  
DAVID ROBERT FOSS  
KEITH J. WOOD  
ALEXANDER J SMOLENSKI, JR.‡  
F JAMES COE  
JOHN L CONWAY  
YANG XU, PH.D.  
NOT ADMITTED IN MASSACHUSETTS

## FACSIMILE TRANSMISSION

TO: Examiner Peter Paras  
United States Patent and Trademark Office  
Art Unit 1632

FAX #: (703) 308-8724

FROM: Sonia K. Guterman, *KG*

DATE: September 10, 2001

GROUP 1A00

SEP 10 2001

**FAX RECEIVED**

SEP 10 2001

GROUP 1600

NO. OF PAGES (including cover page): 10

COMMENTS/INSTRUCTIONS:

THIS TRANSMITTAL IS INTENDED ONLY FOR THE ADDRESSEE, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED OR CONFIDENTIAL. IF THE RECIPIENT OF THIS TRANSMITTAL IS NOT THE ADDRESSEE, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AT (617) 443-9292. THANK YOU.

169861

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bahramian et al.  
Appln. No.: 09/472,558  
Filed: December 27, 1999  
Invention: MUTING GENE ACTIVITY USING A TRANSGENIC NUCLEIC ACID

Grp./Art Unit: 1632  
Examiner: Paras, Jr., P.  
Docket No: 2498/101 (new)

\*\*\*\*\*  
**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being transmitted by facsimile to the United States Patent and Trademark Office, Washington, D.C. 20231, to Examiner Peter Paras, Art Unit 1632, fax number (703) 308-8724, telephone number (703) 308-8340, on September 10, 2001.

  
Sonia K. Guterman, Ph.D.

Honorable Commissioner of Patents  
Washington, DC 20231

**AMENDED RESPONSE B**

Sir:

In response to the Office Action dated March 14, 2001 and the telephonic conference dated Sept. 7, 2001 with the Examiners, please amend the application as follows.

In the claims:

Please cancel claims 1-10, 12, 19-21, 26-27, 50 and 52, and amend claims 11, 17-18, 22 and 24 as follows:

11. (Twice amended) A method for muting expression of an endogenous gene in a cultured population of animal cells, the method comprising the steps of:

(a) providing a muting nucleic acid composition having a sequence that is homologous to a sequence in the endogenous gene; and

(b) delivering the muting nucleic acid into the population of cells under conditions devoid of a selection for integration of the nucleic acid into a chromosomal site, so that expression of the endogenous gene in the population as a whole is inhibited even though such gene's sequence is not therein disrupted.